

cess services subject to federal jurisdiction. If this were not the case, every ILEC offering DSL would have refused to file DSL service tariffs with the FCC. To the contrary, however, Bell Atlantic, GTE, BellSouth and Pacific Bell filed and defended their tariffs at the federal level. Each of these carriers argued that DSL services must be subject to federal jurisdiction as dedicated telecommunications transmission facilities that give end users network access for Internet and data services.<sup>68</sup> These arguments only strengthen the Commission's own conclusion that xDSL-based advanced services are telecommunications services included within the Act's exchange access classification. Therefore, the Commission correctly held in the *Advanced Services Order* that ILECs must provide interconnection under Section 251(c)(2) to all CLECs that offer advanced services.

**B. The Commission's Historical "End-to-End" Analysis is an Inappropriate Jurisdictional Construct for Advanced Services**

In the *GTE DSL Order*, the Commission engaged in a jurisdictional analysis of advanced services that reached the correct conclusion, but (in part) for the wrong reason. Indeed, the Commission's logic in the *GTE DSL Order* likely has contributed to the confused argumentation in this case. Therefore, the Commission should explicitly repudiate a portion of its analysis in the *GTE DSL Order* in order to present a consistent, sound and technologically viable regulatory position on advanced services.

In the *GTE DSL Order*, the Commission partially relied on an historical "end-to-end" analysis for establishing its jurisdiction.<sup>69</sup> This analytical construct cannot be squared with today's packet-switched environment and should be rejected finally by the Commission in the

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<sup>67</sup> *First Report and Order*, 11 FCC Rcd. at 15,934.

<sup>68</sup> CC Docket No. 98-79, Direct Case of GTE at 6 (Sept. 8, 1998); CC Docket No. 98-168, Bell Atlantic's Direct Case at 4-5 (Oct. 6, 1998); CC Docket No. 98-161, Direct Case of BellSouth Telecommunications, Inc. at 15 (Sept. 11, 1998).

<sup>69</sup> *GTE DSL Order*, 13 FCC Rcd. at 22475-78.

context of advanced services. End-to-end analysis, also termed “totality of the communication” analysis,<sup>70</sup> holds that the ultimate end points of a communication determines the jurisdictional nature of the communication.<sup>71</sup> The presence of intermediate switching points or exchange boundaries is irrelevant to this inquiry.<sup>72</sup> The Commission, applying end-to-end analysis, principally relied upon its holding in *BellSouth MemoryCall Order*<sup>73</sup> regarding jurisdiction over voice mail. *BellSouth MemoryCall* stands only for the unremarkable proposition that the Communications Act of 1934<sup>74</sup> preempts states from regulating voice mail service, an enhanced service, because it stores messages from interstate calls. The Commission recognized that voice mail is an enhanced service separate from voice telephony, which “uses the same equipment and underlying basic services” but is subjected it to a different regulatory regime.<sup>75</sup>

Nothing in the *BellSouth MemoryCall Order*, however, requires the Commission to determine that, despite *Computer II*, telecommunications and information services have now become a single, seamless service that cannot be differentiated. Moreover, nothing in that Order requires the Commission to use its end-to-end analysis, which is helpful in the context of traditional circuit-switched telephony, to an altogether new service that uses wireline facilities for Internet packet-switched communications.

This historical construct cannot simply be borrowed in this proceeding to DSL-based advanced services. In fact, the Commission’s Office of Plans and Policy has already concluded

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<sup>70</sup> *GTE DSL Order*, 13 FCC Rcd. at 22,473.

<sup>71</sup> *Id.*, 13 FCC Rcd. at 22,475.

<sup>72</sup> *Id.*, 13 FCC Rcd. at 22,475.

<sup>73</sup> *Petition for Emergency Relief and Declaratory Ruling Filed by BellSouth Corporation*, Memorandum Opinion and Order, 7 FCC Rcd. 1619 (1992) (“*BellSouth MemoryCall Order*”).

<sup>74</sup> The Commission cited Section 153 the Communications Act, which gives the Commission exclusive jurisdiction over interstate wire communication for “transmission of writing, signs, signals, pictures, and sounds of all kinds by aid of wire, cable, or other like connection between the points of origin and reception of such transmission, including the instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission.” 7 FCC Rcd. at 1621 (citing 47 U.S.C. § 153(a)).

<sup>75</sup> *Id.* at 1623.

that “simply mapping the rules that apply to other services onto the Internet will produce outcomes that are confusing, perverse, or worse.”<sup>76</sup> As Rhythms has explained, “the ‘end points’ of communication become virtually irrelevant in the ‘connectionless’ medium of today’s packet-switched based Internet technology.”<sup>77</sup> Further, application of “end-to-end” analysis in this instance leads inevitably to policy results that run counter to the Commission’s entire regulatory regime for wire communications.<sup>78</sup> The Commission’s conclusion that DSL service extends from the end user to “any distant website”<sup>79</sup> conflates DSL telecommunications service with ISP service such that, *a fortiori*, a DSL service providers becomes an ISP or an ISP becomes a DSL provider. This result would, of course, obliterate the Commission’s long-standing distinction between telecommunications services and information services created with *Computer II*. To preserve this distinction, the Commission must discipline itself to separate the transmission component of DSL — which is telecommunications — from the Internet and data content it supports. Or, to coin a phrase, the Commission must separate the pipe from the cloud.

In fact, the Commission itself defended its decision to hold telecommunications separate from information services on the grounds that “[a]n approach in which a broad range of information service providers are simultaneously classed as telecommunications carriers, and thus presumptively subject to the broad range of Title II constraints, could seriously curtail the regu-

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<sup>76</sup> *Digital Tornado* at 1.

<sup>77</sup> CC Dockets 98-161 *et al.*, Comments of ACI Corp. and FirstWorld Communications, Inc. on the Direct Cases of BellSouth, GTE and PacBell at 3 (Sept. 21, 1998). Indeed, the Commission has recognized that Internet communications “do[] not provide sufficient information to identify the routing of the call for jurisdictional purposes.” FCC, *Digital Tornado: The Internet and Telecommunications Policy*, OPP Working Paper Series, No. 29 at 45 (March 1997)(“*Digital Tornado*”).

<sup>78</sup> See CC Dockets 98-161 *et al.*, Comments of RCN Telecom Services, Inc. on Petitions for Reconsideration at 7 (“The Commission’s decision to ‘analyze ISP traffic as a continuous transmission from the end user to a distant Internet site’ is an anachronistic approach that fails to reflect Internet communications while it needlessly complicates the issue of reciprocal compensation for dial-up traffic.”).

<sup>79</sup> *GTE DSL Order*, 13 FCC Rcd. at 22,476.

latory freedom . . . of the enhanced-services industry.”<sup>80</sup> The Commission can ensure that these classes of services remain separate by relying upon its settled special access regulatory regime to conclude that DSL falls within its exclusive jurisdiction if it meets the ten percent *de minimis* rule.<sup>81</sup>

It is precisely because the nature of Internet traffic that DSL carries is wholly unlike voice telephony that application of the traditional end-to-end jurisdictional analysis to DSL-based advanced services inevitably leads to an insoluble and unnecessary jurisdictional inquiry. As the Commission recognized in the *GTE DSL Order*, Internet services are among the primary services that DSL-based services support.<sup>82</sup> Internet traffic is unlike circuit-switched voice telephony because it is a packet-switched communication that is prohibitively difficult, if not impossible, to trace as it routes through the network. No single network provides end-to-end, or even POP-to-POP, transport of Internet data.<sup>83</sup>

It is the phenomenon of packet-switching that makes the Internet not a definable network but a “cloud” of information services that has no origination or termination. This “cloud” is wholly separate and distinct from the facility that supports it, be it switched dial-up services or DSL-based advanced services. Further, because Internet packet switching involves no single connection between a client and server, it is simply not possible to classify Internet traffic by jurisdiction. For this reason, “end-to-end” analysis with respect to classifying DSL-based advanced services is an impossible task. Therefore, the Commission should rely on its special access analysis for asserting jurisdiction over advanced services. This analysis, as demonstrated

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<sup>80</sup> *Stevens Report* ¶ 46.

<sup>81</sup> 47 C.F.R. § 36.154.

<sup>82</sup> *GTE DSL Order*, 13 FCC Rcd. at 22,478.

<sup>83</sup> Joint Opposition of Netscape Communications Corporation, Voxware, Inc. and InSoft, Inc., *The Provision of Interstate and International Interexchange Telecommunications Service Via The “Internet” By Non-Tariffed, Uncertificated Entities*, RM No. 8775, at 16 (filed May 8, 1996).

above, not only clarifies the jurisdictional issue but is consistent with the Commission's application of Section 251's interconnection requirements to DSL-based carriers.

#### **IV. THE COMMISSION HAS CLEAR AUTHORITY UNDER SECTION 706 TO APPLY MARKET-OPENING MEASURES FOR FACILITATING DEPLOYMENT OF ADVANCED SERVICES**

According to the plain language of Section 251(c), the only ILEC obligation applicable exclusively to "exchange access" providers is the interconnection requirement; unbundling and collocation access apply to any competitive telecommunications provider. Thus, even if the Commission agrees that advanced services are not exchange access services, this finding affects only the interconnection requirement of Section 251. Even absent a Section 251 mandate, however, the Commission can apply the principle of Section 251 interconnection to advanced services according to its expansive regulatory authority under Section 706.

In Section 706 of the 1996 Act, Congress has empowered the Commission to require ILECs to provide reasonable access to the facilities required for advanced services. Under this authority, the Commission may employ the market-opening provisions of the 1996 Act to "encourage the deployment of advanced services" without regard to the class of service sought to be deployed.<sup>84</sup> Therefore, even if the Commission accepts that the classes of services articulated in Section 251(c)(2) have regulatory meaning, it can and should apply the provisions of that section in order to ensure widespread deployment in broadband advanced services deployment.

##### **A. Only the Interconnection Requirement of Section 251(c)(2) Is Limited to Exchange Services**

Only Section 251(c)(2) refers specifically to the "telephone exchange" and "exchange access" classes of service in its articulation of ILEC obligations. Of the six ILEC requirements

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<sup>84</sup> 1996 Act, § 706(a).

outlined in Section 251, only subpart (c)(2) refers to specific classes of service eligible for network access.

Section 251's obligation to provide UNEs, detailed in subpart (c)(3), requires ILECs to provide UNEs to "any requesting telecommunications carrier" for the provision of any telecommunications service.<sup>85</sup> In addition, ILEC collocation obligations require "collocation necessary for interconnection or access to UNEs."<sup>86</sup> Thus, collocation obligations flow from both interconnection under (c)(2) and access to UNEs under (c)(3), granting CLECs access to collocation facilities for one or both purposes. Therefore, to the extent that the classes of service retain any meaning at all under the 1996 Act, they cannot impede or preclude CLEC access to UNEs or collocation to any degree.

**B. Section 706 Grants the Commission Broad Authority to Mandate Interconnection on Behalf of Advanced Services Providers**

Section 706 charges the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" by employing such regulatory methods as are necessary to achieving advanced services deployment.<sup>87</sup> This provision unequivocally empowers the Commission to facilitate deployment of advanced services by application of interconnection requirements for advanced services, whether or not such a ILEC obligation is also specifically compelled under Section 251.

Under Section 706, the Commission may address circumstances that inhibit the deployment of advanced services by employing "regulating methods that remove barriers to infrastructure investment." These methods include, but are not limited to, "measures that promote compe-

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<sup>85</sup> Section 251(c)(3).

<sup>86</sup> Section 251 (c)(6).

<sup>87</sup> 1996 Act, § 706(b).

tition in the local telecommunications market.”<sup>88</sup> By its own language, then, Section 706 provides the Commission with the authority to impose upon incumbents whatever measures are necessary to “remove barriers” that inhibit deployment of advanced telecommunications services, including measures that enable and promote competition in advanced services. The biggest barrier to infrastructure deployment, access to the monopoly “last mile” controlled by the ILECs, is the same competitive issue the Commission has addressed in numerous pre-Act proceedings, for which it retains authority and jurisdiction under the Supreme Court’s *Iowa Utilities* decision.

For instance, *Computer III*, first promulgated in 1986,<sup>89</sup> required the Bell operating companies (“BOCs”) to allow Open Network Access (ONA) and Comparably Efficient Interconnection (CEI) for their competitors “both to prevent discrimination in access to basic services for enhanced services providers and to promote the increased efficient use of the telecommunications network.”<sup>90</sup> This regime required BOCs to provision portions of the telephone networks “on an unbundled and functionally equal basis” to enhanced services providers.<sup>91</sup> These rules were designed to “promot[e] the continued development of competition in the enhanced services marketplace”<sup>92</sup> in order to increase availability of these services for all consumers.<sup>93</sup>

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<sup>88</sup> 1996 Act, § 706(a).

<sup>89</sup> *Amendment of Sections 64.702 of the Commission’s Rules and Regulations (Third Computer Inquiry)*, Report and Order, 104 FCC.2d 958 (1986), *vacated California v. FCC*, 905 F.2d 1217 (9<sup>th</sup> Cir. 1990).

<sup>90</sup> *Amendment of Sections 64.702 of the Commission’s Rules and Regulations (Third Computer Inquiry)*, Memorandum Opinion and Order on Reconsideration, 2 FCC Rcd. 3035, 3036 (1987), *vacated California v. FCC*, 905 F.2d 1217 (1990).

<sup>91</sup> Memorandum Opinion and Order on Reconsideration, 2 FCC Rcd. at 3037.

<sup>92</sup> *Id.* at 3039.

<sup>93</sup> The Commission’s authority to impose ONA/CEI rules was not questioned by the Ninth Circuit in its remand of the *Computer III* orders. “We also agree that the Commission has made a plausible case that ONA, CEI and the growth of bypass technology will be effective in reducing the risk of BOC access discrimination. Thus, the record supports the FCC’s determination that *Computer III*’s substitution of nonstructural safeguards for structural safeguards will benefit the enhanced service industry.” *California v. FCC*, 905 F.2d 1217, 1238 (9<sup>th</sup> Cir. 1990) (*California I*); “We hold that these orders do not in and of themselves violate the APA because the FCC has not implemented any significant, unexplained departure from prior ONA policy. *California v. FCC*, 4 F.3d 1505, 1506 (1993)(*California II*).

The Commission's task in fostering advanced services under Section 706 is very similar to the goals of *Computer III*. Section 706 requires the Commission to ensure the speedy deployment of advanced telecommunications capability much as *Computer III* was meant to speed deployment of enhanced services to all consumers. Therefore, the Commission's *Computer III* ONA unbundling rules provide a useful analog for the Commission in implementing rules that will achieve Congress's goals in Section 706. Specifically, the Commission should require ILECs to provide advanced services competitors with unbundled access to network facilities in order to facilitate their entry into the market, thereby encouraging "deployment on a reasonable and timely basis" for advanced services.


### CONCLUSION

For all these reasons, the Commission should (1) conclude that DSL services are telecommunications services, not information services, for which ILECs must make interconnection by CLECs available, (2) reiterate its conclusion that UNEs and collocation are available to all telecommunications carriers, including DSL providers, regardless of their network transport technologies, (3) reaffirm its holding in the DSL tariffing cases that DSL is an interstate special access service that falls within the definition of "exchange access" in the 1996 Act, and

(4) expressly apply its authority under Section 706 and settled 1934 Act provisions to apply interconnection obligations to advanced services separate and apart from Section 251 of the 1996 Act.

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